BEFORE THE

STATE CORPORATION COMMISSION

OF VIRGINIA

Application of	)	
	)	
Verizon Virginia Inc.	)	**Case No. PUC-2007-______**
and	)	
Verizon South Inc.	)	
	)	
For a Determination that Retail Services Are Competitive and Deregulating and Detariffing of the Same	)	

DANVILLE (DAN)

EXHIBITS

PUBLIC VERSION

Danville (DAN) Exhibits

Table of Contents

DAN-1

Danville MSA

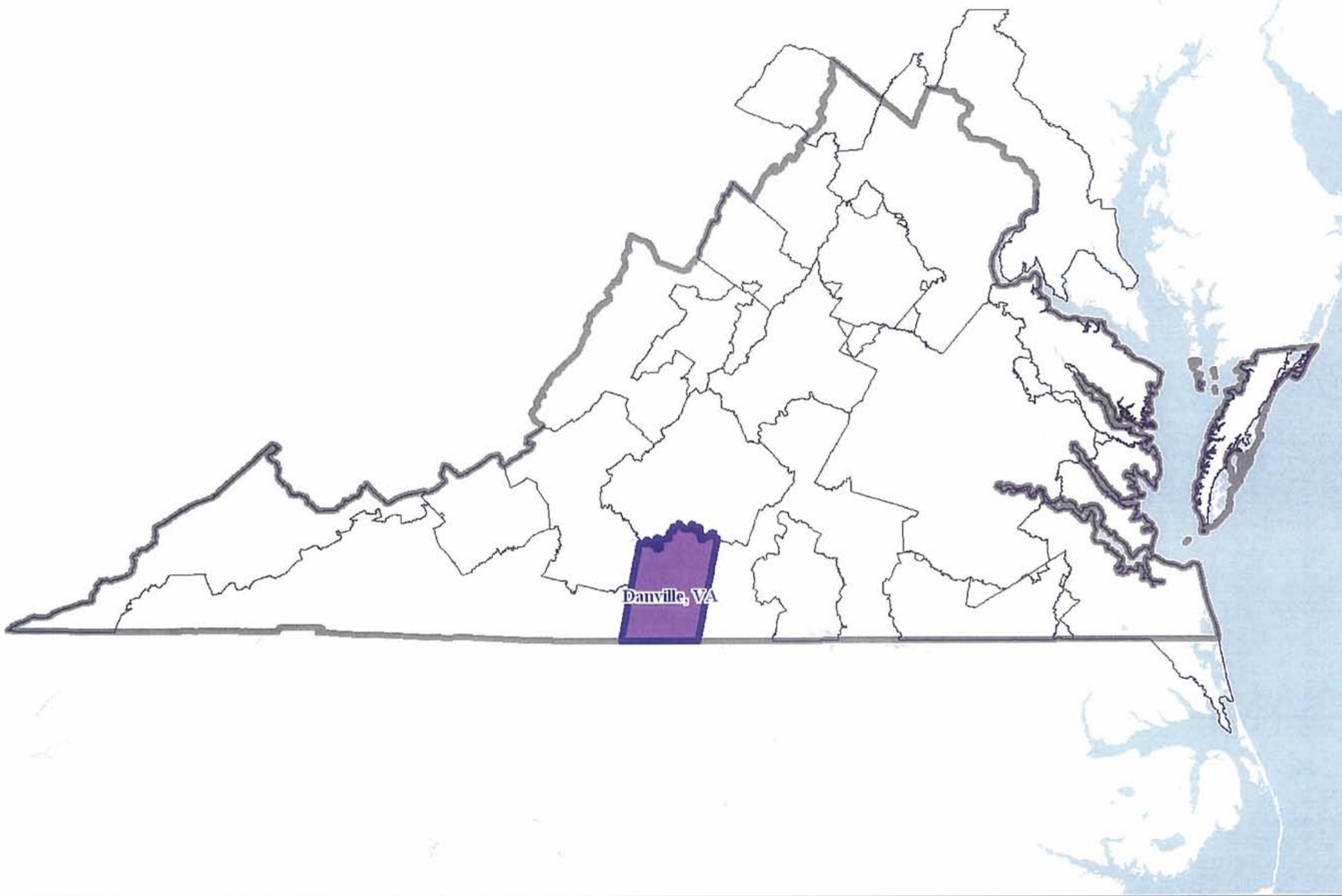

Exhibit DAN-1, page 1 of 3

Danville MSA

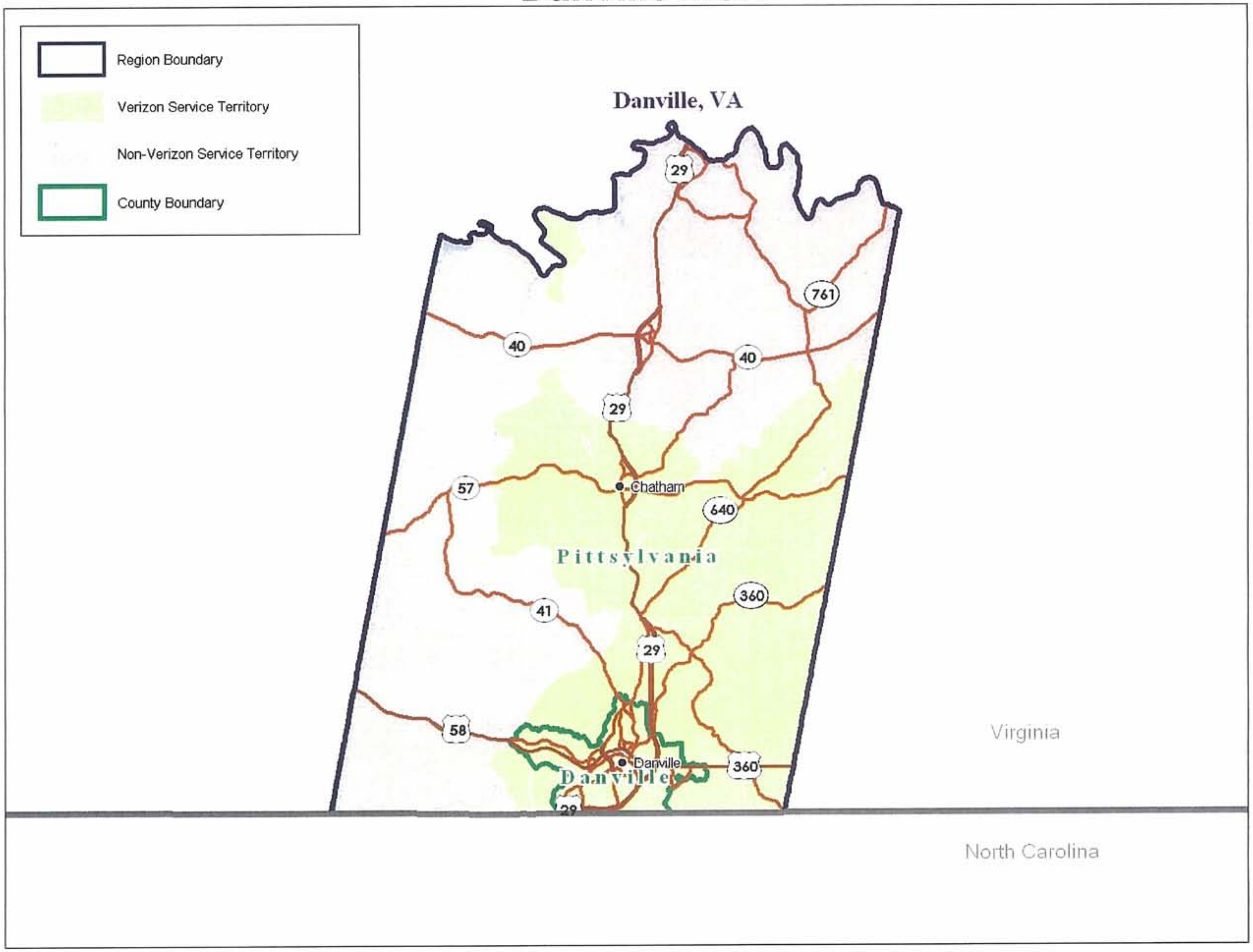

Exhibit DAN-1, page 2 of 3

Danville MSA

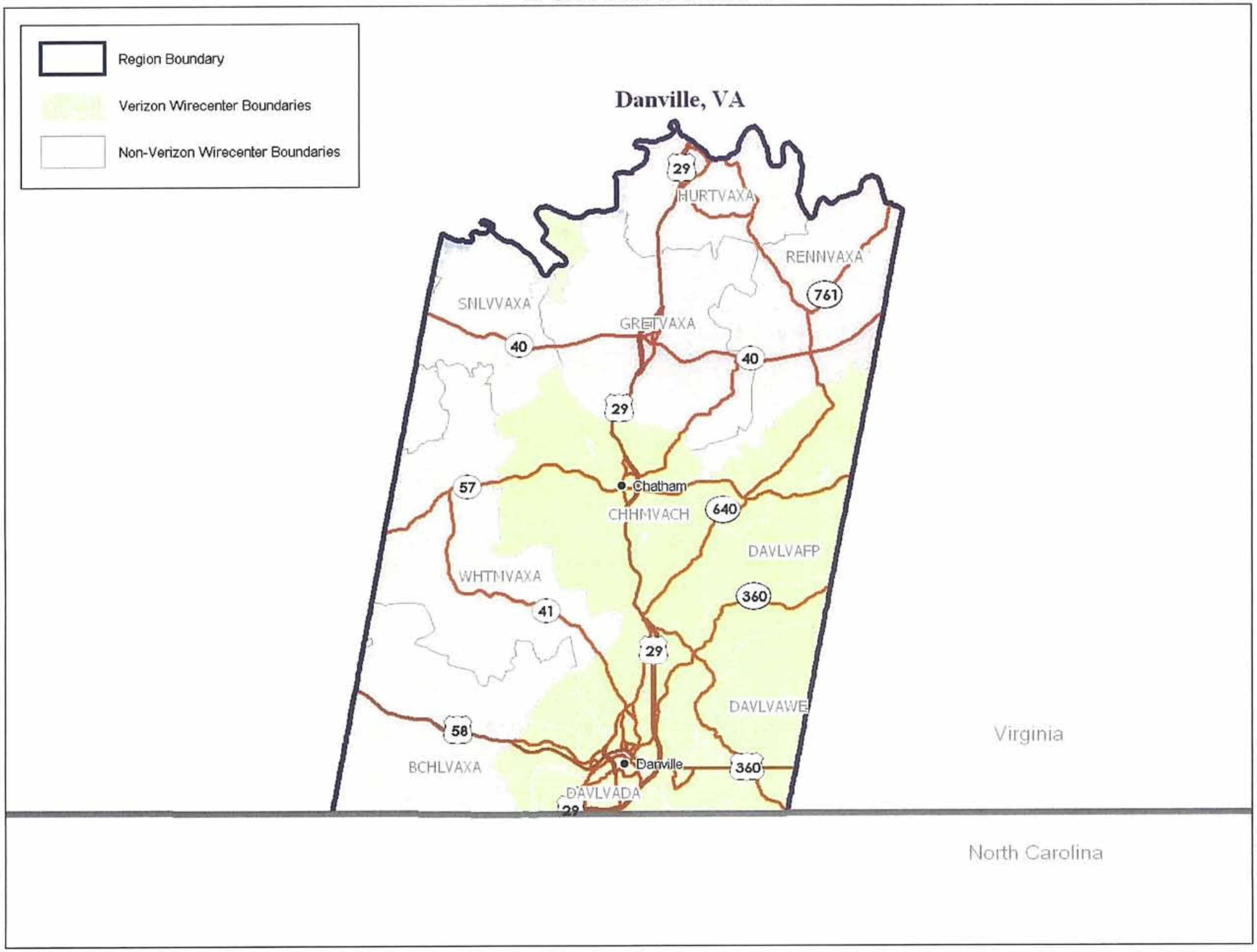

Exhibit DAN-3, page 3 of 3

DAN-2

Exhibit DAN-2

COMPETITION AND POTENTIAL COMPETITION FOR RETAIL TELECOMMUNICATIONS SERVICES IN VERIZON'S DANVILLE MSA SERVICE TERRITORY

Report of Jeffrey A. Eisenach, Ph.D.
January 17, 2006

CONTENTS

I. OVERVIEW

Verizon's service territory in the Danville MSA consists of 456 square miles, with a population of 75,541 living in 32,147 households; there are 2,187 business establishments.[1] The average population density is 166 persons per square mile, and the median household income is 36,576.[2] Verizon operates five wire centers in the region.[3]

The Danville MSA is located in the 434 area code, and includes territories in southern Pittsylvania County and a small section of western Halifax County. It is bordered by Embarq service territories and, on the south, by North Carolina; it is bisected from north to south by Route 29, and Route 360 cuts an arc through the western portion of the region.[4]

The region is a mix of rural and urban territories. Its least densely populated wire center, Chatham, has 45 persons per square mile; the most densely populated is Danville, with 483 persons per square mile.[5]

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]

Mobile wireless coverage is ubiquitous and **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** in the region consider their cell phone to be their primary telephone.

With respect to broadband, nearly all customers have access to cable modem service, and a variety of other broadband options are available from CLECs as well as from fixed wireless providers, whose service territories cover close to 90 percent of households.

There are no barriers to entry. Significant entry has already occurred and more is underway. Cable telephony has not yet been rolled out in the area, but the cable infrastructure is nearly ubiquitous and capable of supporting telephony with minimal fixed investment. NTELOS and other CLECs are well positioned to expand their presence.

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1. *See* Exhibit DAN-4.
2. *See id.*
3. *See* Exhibit DAN-3. In Exhibit DAN-4, there are only four wire centers listed for demographic purposes. The fifth wire center, RNGLVARG (Ringgold) is disaggregated for in DAN-15, however for the demographic data it is rolled into the DAVLVADA (Danville) wire center. See DAN-15. *Cf.* DAN-4.
4. *See* Exhibit DAN-1.
5. *See* Exhibit DAN-4.
6. *See* Exhibit DAN-14.

The analysis below of the availability and usage of existing alternative services, and of the conditions associated with potential competition and new entry, demonstrates that competition already regulates the prices of Verizon's retail telephony services in the Danville MSA, and that further entry and even more intense competition is a virtual certainty.

II. AVAILABILITY OF ALTERNATIVE SERVICES

All 32,147 households in the Danville MSA and all 2,187 businesses in the Danville MSA have the option to obtain alternatives to Verizon's BLETS, OLETS and Bundled Services from competitive providers. Facilities-based competition is present, and many CLECs also provide services through resale and/or Wholesale Advantage agreements. Mobile telephone service is ubiquitous, and broadband service is nearly so.

A. Traditional CLECs[7]

Traditional CLECs provide robust competition throughout the Danville MSA, and facilities-based competition is present in three of the five wire centers.

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL][10]

In addition, all households and businesses in the Danville MSA can receive service from traditional CLECs through resale and/or Wholesale Advantage services available from Verizon.[11] As of March 2006, **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL]

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7. Here and in the remaining sections of this report, unless otherwise indicated, "traditional CLEC" refers to CLECs other than cable companies. "CLEC" refers to both traditional CLECs and cable companies.
8. *See* Exhibit DAN-15 and Exhibit DAN-17. The E911 data includes lines that are unable to be assigned to a wire center. These unassignable lines are included in the aggregate competition information. This leads to some under representation of E911 lines when broken out by wirecenter.
9. *See* Exhibit DAN-14.
10. *See* Exhibit DAN-4 and Exhibit DAN-15. It is also true that, based on the reach of CLEC switches located in and around the Danville region, all 32,147 households and 2,187 businesses can receive service from at least **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** *See* Exhibit DAN-18.
11. *See* Exhibit DAN-16
12. *See* Exhibit DAN-15.
13. *See* Exhibit DAN-15.

Altogether, a total of **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL][14]

B. Cable Telephony

Two cable companies service the Danville MSA, Comcast (which purchased the former Adelphia franchise) and Chatmoss Cablevision.[15] Comcast's service territory includes 98 percent of the households, while Chatmoss covers an additional 1.2 percent. Neither company yet offers cable telephony service, but both offer cable modem service over fully digital cable infrastructures over which telephony can be deployed quickly and inexpensively.[16] Comcast has announced plans to deploy cable telephony over its former Adelphia lines in the near future.[17]

C. Mobile Telephony

Of the 32,147 households in the Danville MSA, 100 percent have access to at least one CMRS provider, and 97 percent have access to two or more carriers.[18] In addition to Verizon Wireless, there are six CMRS providers offering retail telephone services in the Danville MSA. They are Alltel, Cingular, NTELOS, Sprint, T-Mobile, and US Cellular.[19]

As of 2006, there are 25 cellular towers in the Danville MSA.[20] Of these, four have been constructed since 2004.[21] There is at least one cellular tower located in the area served by each of the five Verizon wire centers.[22]

D. Broadband and VoIP

Increasingly, consumers are choosing to combine stand-alone broadband Internet access with VoIP services provided by "bring your own access" companies such as Vonage, thus creating their own bundles of broadband and retail telephony services. Both broadband and VoIP services are available to virtually 100 percent of Danville households and businesses.

<u>Cable Modem and DSL Service</u>: Both cable providers, Comcast and Chatmoss Cablevision, offer cable modem service throughout their service territories in the Danville

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14. *See* Exhibit DAN-14.
15. *See* Exhibit VA-10 and Exhibit DAN-7.
16. *Sitestar Partners with Cable Provider to Offer* Broadband, BUSINESS Wire, Nov. 10, 2000, *available at* http://www.highbeam.com/library/docfree.asp?docid=1G1:66800415&refid=gg_x_01_gale.
17. *See* West Testimony at 42; see also Comcast, FAQ, https://www.comcast.com/Customers/FAQ/FaqDetails.ashx?Id=3804 (last visited Dec. 3, 2006); *id.* at https://www.comcast.com/Customers/FAQ/FaqDetails.ashx?Id=3807 (last visited Dec. 3, 2006).
18. *See* Exhibit DAN-12.
19. *See* Exhibit DAN-11.
20. See Exhibit DAN-10.
21. *See id.*
22. *Compare* Exhibit DAN-3 (map of wire center boundaries) with Exhibit DAN-10.

MSA,[23] serving 99.2 percent of all residences.[24] In addition, Verizon makes DSL service without voice available to retail customers for $26.99 per month. DSL is available from Verizon to **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** of households.[25]

<u>Fixed Wireless Service</u>: In addition to wireline cable modem and DSL services, 90 percent of residences have access to fixed wireless services.[26] Service is provided several commercial providers. Providers include:

- <u>Gamewood</u>: Gamewood.net offers fixed wireless broadband covering much of the region. Its residential service begins at $29.95 per month for 512 Kbps, and commercial service is available beginning at $49.95 per month.[27]

- <u>Kimbanet</u>: Kimbanet offers fixed wireless broadband to both residential and business customers.[28] The residential service offers 512 Kbps for $74.95 per month. Business class is over 1 Mbps for $150.00 per month

While the firms discussed above do not offer bundles that include VoIP services, customers have the option of purchasing alternatives to Verizon's BLETS, OLETS and Bundled Services from by-pass VoIP companies. VoIP providers that offer telephone numbers in the 434 area code include Net2Phone and Packet8.[29]

E. Overall Availability of Alternative Platforms and Competitors

Looking overall at the availability of service from alternative platform providers (i.e., from mobile wireless, cable modem, DSL, facilities-based CLECs and fixed wireless), 100 percent of all households in the Danville MSA have service available from at least one alternative platform provider and 88 percent have service from four or more alternative platforms.[30]

Similarly, looking overall at the availability of service from all competitors – i.e., the same measure as above, but counting each competitor separately (e.g., counting each CMRS provider separately), competition is even more extensive: 100 percent of households have competitive alternatives from at least two competitors, and 85 percent have access to service from eight or more Verizon competitors.[31]

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23. *See* Exhibit VA-10 and Exhibit DAN-8.
24. *See id.*
25. *See* Exhibit VA-4.
26. *See* Exhibit VA-4.
27. *See* Gamewood Telecom, http://www.gamewood.com (last visited Dec. 23, 2006).
28. Kimbanet, Wireless Service, http://www.kimbanet.com/wirelessservice.asp (last visited July 21, 2006).
29. *See* West Testimony at 81.
30. *See* Exhibit VA-4 and Exhibit DAN-5.
31. *See* Exhibit VA-5 and Exhibit DAN-6.

III. USAGE OF ALTERNATIVE SERVICES

Verizon's internal data shows that at least **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of wireline telephone lines in the Danville region were being served by competitors as of March 2006, and past trends would indicate that that proportion would have increased in the intervening months. However, these figures understate the true market share of competitors, since they fail to account for intermodal competition, such as from wireless and broadband.

Survey data indicates that **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] of households subscribe to broadband. Taking intermodal competition into account, the data presented below show that Verizon voice lines now account for only 39.5 percent of all wireline telephony, wireless telephony and broadband connections in the region.

Time series data presented at the end of this section also shows that Verizon's wireline market share is falling, both in proportion to the number of wirelines served and relative to the number of households in the region. Taken together, the data presented in detail below demonstrates that the competitive alternatives described in Section II represent viable alternatives for Verizon's BLETS, OLETS and Bundled Services in the Danville region, since customers are actually switching to them in large numbers.

A. Traditional CLECs and Cable Telephony

As detailed in Exhibit DAN-15, a total of **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL][34] The high rate of residential competition is notable given that cable telephony services are not yet available in the region.

These figures are consistent with the survey data presented by Mr. Newman, which shows that **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of residential customers in the Danville MSA are using providers other than Verizon.[35] In small MSAs (including the Danville MSA), the survey shows that 20.3 percent of POTS business customers and 29.9 percent of all business customers are using other providers.[36]

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32. This figure does not include approximately six percent of the population (who by definition were not reached through Verizon's telephone survey) who have cut the cord altogether. *See* West Testimony at 63.
33. *See* Exhibit DAN-15.
34. *See* Exhibit DAN-19.
35. *See* Exhibit VA-21. The survey results regarding presented by Mr. Newman also includes a very small number of customers who listed mobile wireless or VoIP providers as their telephony provider.
36. *See* Exhibit VA-20.

Exhibit DAN-15 also demonstrates that wireline competition is ubiquitous throughout the Danville MSA. It shows that competitors are actually serving both business and residential customers in **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of the five wire centers in the Danville region, including the smallest and most rural wire centers. Furthermore, facilities-based competition is also present, with **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** These data demonstrate that alternatives to Verizon's BLETS, OLETS and Bundled Services from wireline competitors are available and in widespread use by both residential and enterprise customers throughout the Danville region.

B. Mobile Telephony

The survey data presented by Mr. Newman shows that **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** of households in the Danville MSA purchase telephone service from mobile telephone companies.[37] Moreover, **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]**[38]

While Mr. Newman's testimony does not provide data on business usage of mobile telephones specifically for the Danville MSA, it does indicate that the proportion of businesses in small MSAs (including the Danville MSA) which purchase mobile telephone service is 50.8 percent,[39] and that 15.5 percent of business respondents consider their mobile telephone to be their primary means of voice communication.[40]

These figures do not include mobile telephone customers who have dropped their wireline service altogether, as these customers were not eligible for the telephone survey. As Mr. West's testimony indicates, national estimates suggest that approximately six percent of residential customers have "cut the cord."[41]

Again, these figures demonstrate that the mobile wireless alternatives available to consumers in the Danville MSA function as actual, viable alternatives to Verizon's BLETS, OLETS and bundled services.

C. Broadband and VoIP

The survey data presented by Mr. Newman show that **[BEGIN CONFIDENTIAL]**

37. *See* Exhibit VA-21.
38. *See id.*
39. *See* Exhibit VA-20.
40. *See id.*
41. *See* West Testimony at 65.

[END CONFIDENTIAL][42]

One implication of this data is that the cable companies in the Danville region have been highly successful in selling at least the second (data) leg of their triple-play offerings, and that Verizon thus faces a substantial competitive challenge as it tries to retain customers in the face of Comcast's imminent triple-play cable telephony offering. The data also demonstrate that wireless Internet providers are making significant inroads, even in this highly competitive market where wireline alternatives are nearly ubiquitous.

The survey data presented by Mr. Newman show that in small MSAs in Virginia (including the Danville region), 59.1 percent of businesses subscribe to high-speed broadband service.[43]

These overall usage rates for broadband demonstrate that the broadband plus VoIP "build your own bundle" option is available today to **[BEGIN CONFIDENTIAL] [END CONFIDENTIAL]** households and six of ten businesses in the Danville MSA, which already subscribe to broadband.

D. Overall Penetration of Wireline and Intermodal Competition

While it is not possible to estimate precisely the number of lines Verizon has lost to wireline and intermodal competitors, it is clear that competition is having a significant impact on Verizon's market share, both in terms of wireline telephony and the overall markets for BLETS, OLETS and bundled services, and that wireline competitors are winning a growing proportion of customers. The data also indicate that intermodal competitors are winning a growing proportion of customers from wireline carriers of all types (i.e., including both Verizon and the traditional CLECs).

Both Verizon's line count and its wireline market share in the Danville MSA are falling. As indicated in Figure 1 below, between December 2003 and March 2006 (i.e., in 27 months), the ratio of Verizon lines to households fell from **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL][45]

During this same 27-month period, the number of residential wirelines served by wireline CLECs rose by **[BEGIN CONFIDENTIAL]**

42. *See* Exhibit VA-21.
43. *See* Exhibit VA-20.
44. *See* Exhibit DAN-19.
45. *See id.*
46. *See id.*
47. *See id.*

[END CONFIDENTIAL][49]

Figure 1 also demonstrates the significance of intermodal competition from wireless telephony and from broadband plus VoIP "build your own" bundles. It shows that the ratio of combined Verizon and CLEC residential lines to households fell from **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL][50] Assuming people have not stopped using voice telephony altogether, these data clearly indicate that wireless and broadband providers are competing effectively with both Verizon and other traditional wireline providers – a conclusion which is consistent with the high rates of wireless telephony usage and broadband adoption discussed in above.

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]

Another perspective on Verizon's loss of overall share is shown in Figure 2 below, which shows the percentage of total connections – including wireline telephony, wireless telephony and broadband connections – served by Verizon voice lines, based on the survey conducted by Mr. Newman. As the figure shows, Verizon voice lines now account for only 39.5 percent of all wireline telephony, wireless telephony and broadband connections.[51]

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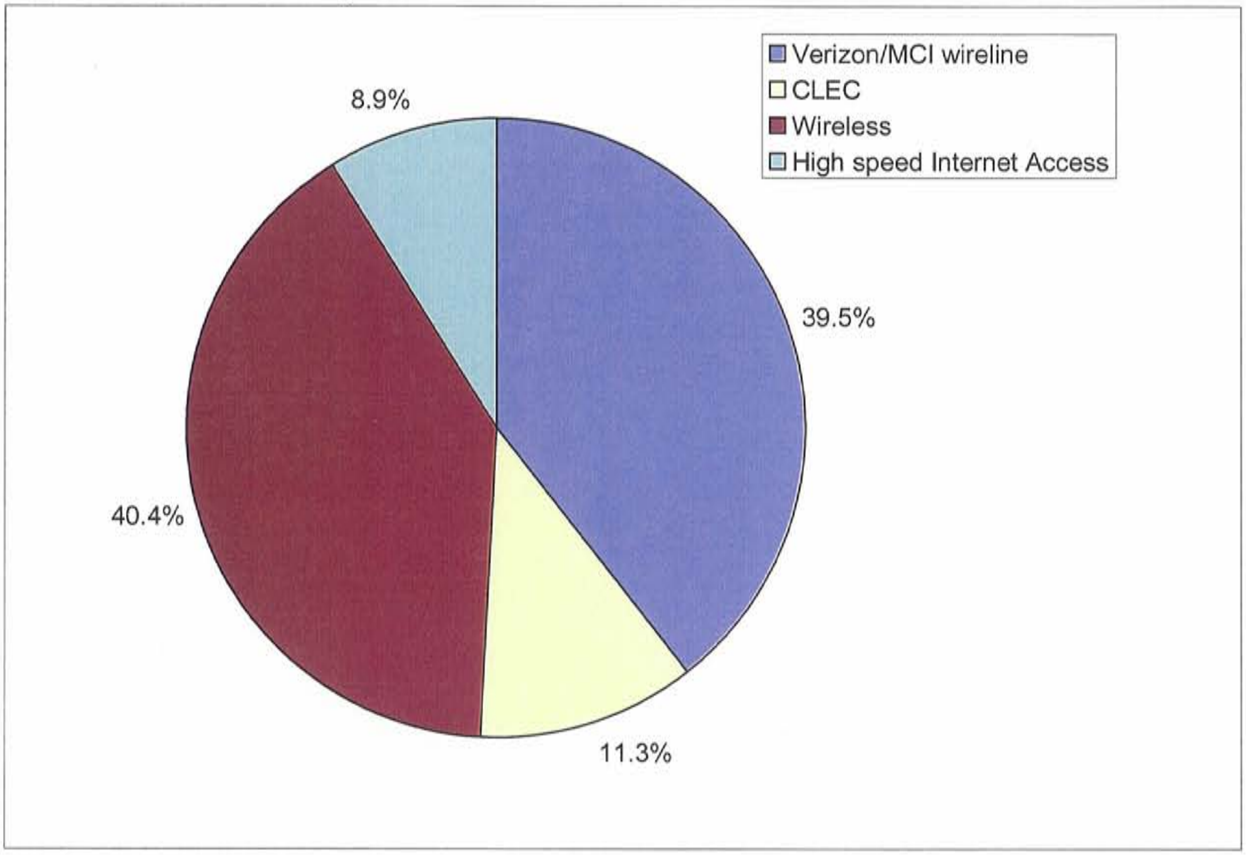
48. *See id.*
49. *See id.*
50. *See id.*
51. *See* Exhibit VA-22.

Figure 2: Verizon Share of Total Connections



IV. POTENTIAL COMPETITION AND ENTRY

While it is clear from the evidence presented above that actual competition already in the marketplace is extensive, even in the absence of additional entry, it is equally clear that entry has occurred, is occurring and is likely to continue occurring in the future. Competition in the Danville MSA is thus certain to become even more intense in the coming months and years.

First, both cable companies have infrastructures capable of supporting cable telephony, and thus are in a position to deploy the service quickly and with very little additional investment. Comcast, which passes 98 percent of the households in the region, has announced its intention to do so in the immediate future.[52] Based on the high rates of cable modem penetration in the area, cable telephony services are likely to be adopted quickly by a significant percentage of consumers.

Facilities-based CLECs are also well-positioned to expand their offerings. **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL] provides mobile wireless

52. *See* Exhibit VA-10.

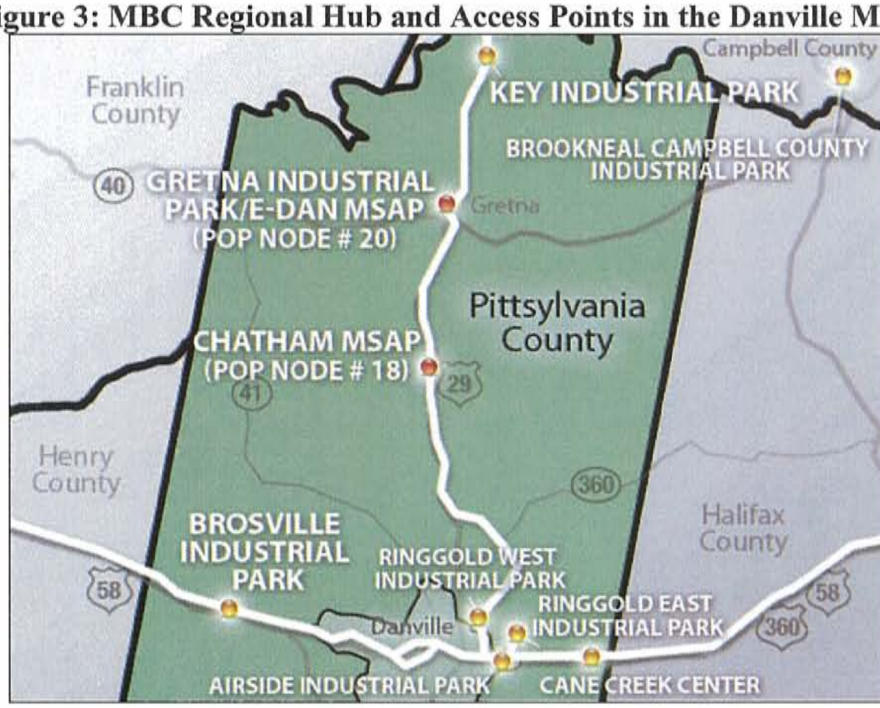
services in the region, and operates a point of presence there. Thus, while **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** wireline customers in Danville today, it could quickly expand its presence with minimal additional investment.

Similarly, **[BEGIN CONFIDENTIAL]**

[END CONFIDENTIAL]

Barriers to entry in the Danville MSA are low and are being further reduced by the construction of major new fiber optic links to the region. As shown in Figure 3, the MidAtlantic Broadband Cooperative has recently completed construction of a regional hub and multiple fiber access points in the region;[53] Kentucky Data Link has opened a point of presence in Keysville, and Cavalier, NTELOS, and ValleyNet also operate points of presence in Danville.[54]

Figure 3: MBC Regional Hub and Access Points in the Danville MSA



Further, the City of Danville is currently creating a city-wide fiber-optic network[55] called nDanville, which initially will serve municipal customers,[56] but is expected to be extended to

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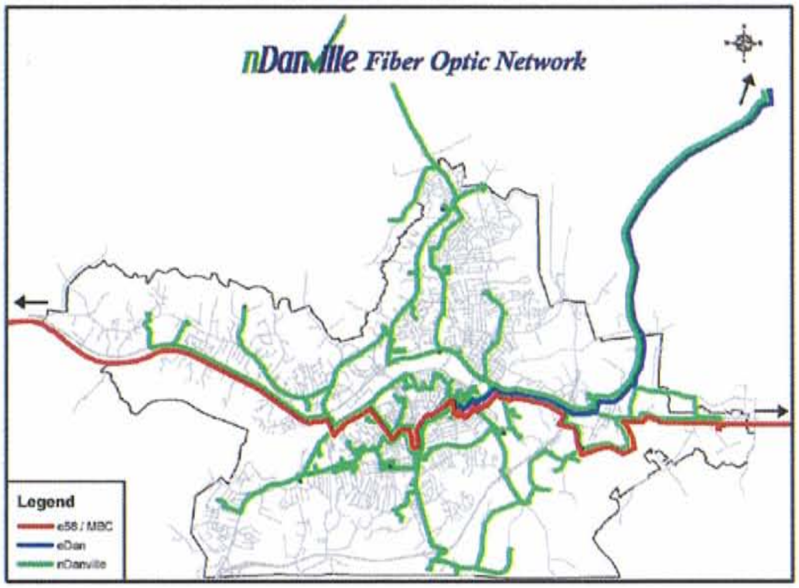
53. *See* http://www.mbc-va.com/map.pittsylvania.php.
54. *See* Eisenach Testimony at III.B. and Exhibit VA-18.
55. City of Danville, nDanville: Danville's Fiber Optic Broadband Municipal Area Network 1 (May 2004), *available at* http://www.danville-va.gov/upload/images/Utilities/nDanville%20Briefing%20Paper.pdf.
56. *See id.*

business and residential uses.[57] As shown in Figure 4 below, nDanville also interconnects with the MidAtlantic Broadband Cooperative long-haul fiber network.[58]

Figure 4: nDanville Fiber Optic Network



In addition, the widespread presence of cell towers throughout the region (there are towers in each of the five wire center areas, and four new towers have been constructed since 2004) means that the mobile and fixed wireless entry is also inexpensive. Finally, in the Danville region, a significant portion of the land area is rural, and thus potentially eligible for funding from the RUS. Moreover both of the counties in the Danville region (Danville and Pittsylvania) are eligible for support from the Tobacco Commission.[59]

V. CONCLUSION

Competition for retail telephone services in the Danville MSA is intense and certain to become more intense in coming years. By every measure, Verizon is already losing customers to traditional CLECs and intermodal competitors at a rapid pace, and this decline is taking place *at current prices*. Comcast has announced plans to roll out cable telephony service to more than 97 percent of households, and is in a position to do without delay and for minimal fixed investment. If Verizon were to raise prices, it would both accelerate the rate at which it is losing customers to existing competitive services,[60] and increase the rate at which competitors and potential competitors deploy new services in the market. The current state of competition, combined with the imminent threat of region-wide entry by cable telephony and the ability of other actual and

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57. *See id.*

58. *See* http://www.danville-va.gov/stage/page.asp?menuid=2820&sub1menuid=3385&sub2menuid=4047.

59. *See* Eisenach Testimony, Table 2 at 27.

60. An analysis conducted by Mr. Taylor estimates that a decision by Verizon to raise prices by 5 percent in the Danville MSA would result in a *net* revenue loss of **[BEGIN CONFIDENTIAL]** **[END CONFIDENTIAL]** annually. *See* Taylor Testimony, Table 14 at 94.

potential competitors rapidly to enter or expand their offerings, is fully adequate to regulate the price of Verizon's retail telephone services in this region.

DAN-3

Wire Centers by Rate Group, Exchange, City and County

REGION	LOC ST	WIRECENTER	LOCATION NAME	Rate Group	Exchange	CENTRAL OFFICE CITY	COUNTY
DANVILLE, VA	VA-E	CHHMVACH	CHATHAM VA	06	CHATHAM	CHATHAM	Pittsylvania
		DAVLVADA	DANVILLE VA	05	DANVILLE	DANVILLE	Danville City
		DAVLVAFP	FRANKLIN PIKE VA	05	DANVILLE	DANVILLE	Danville City
		DAVLVAWE	WESTOVER VA	05	DANVILLE	DANVILLE	Danville City
		RNGLVARG	RINGGOLD VA	05	DANVILLE	DANVILLE	Danville City

DAN-4

CONFIDENTIAL

EXHIBIT DAN-4

DAN-5

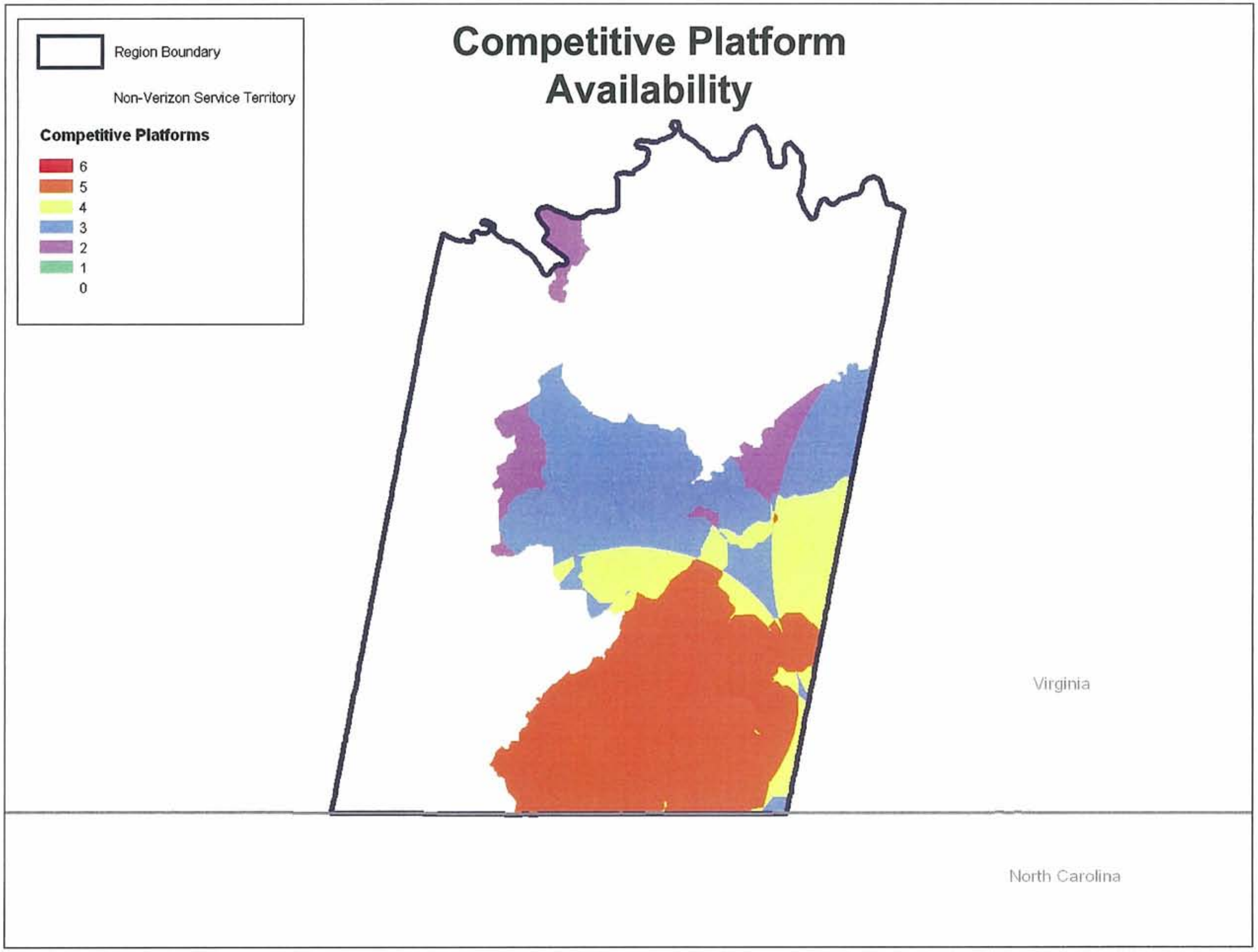


Exhibit DAN-5

DAN-6

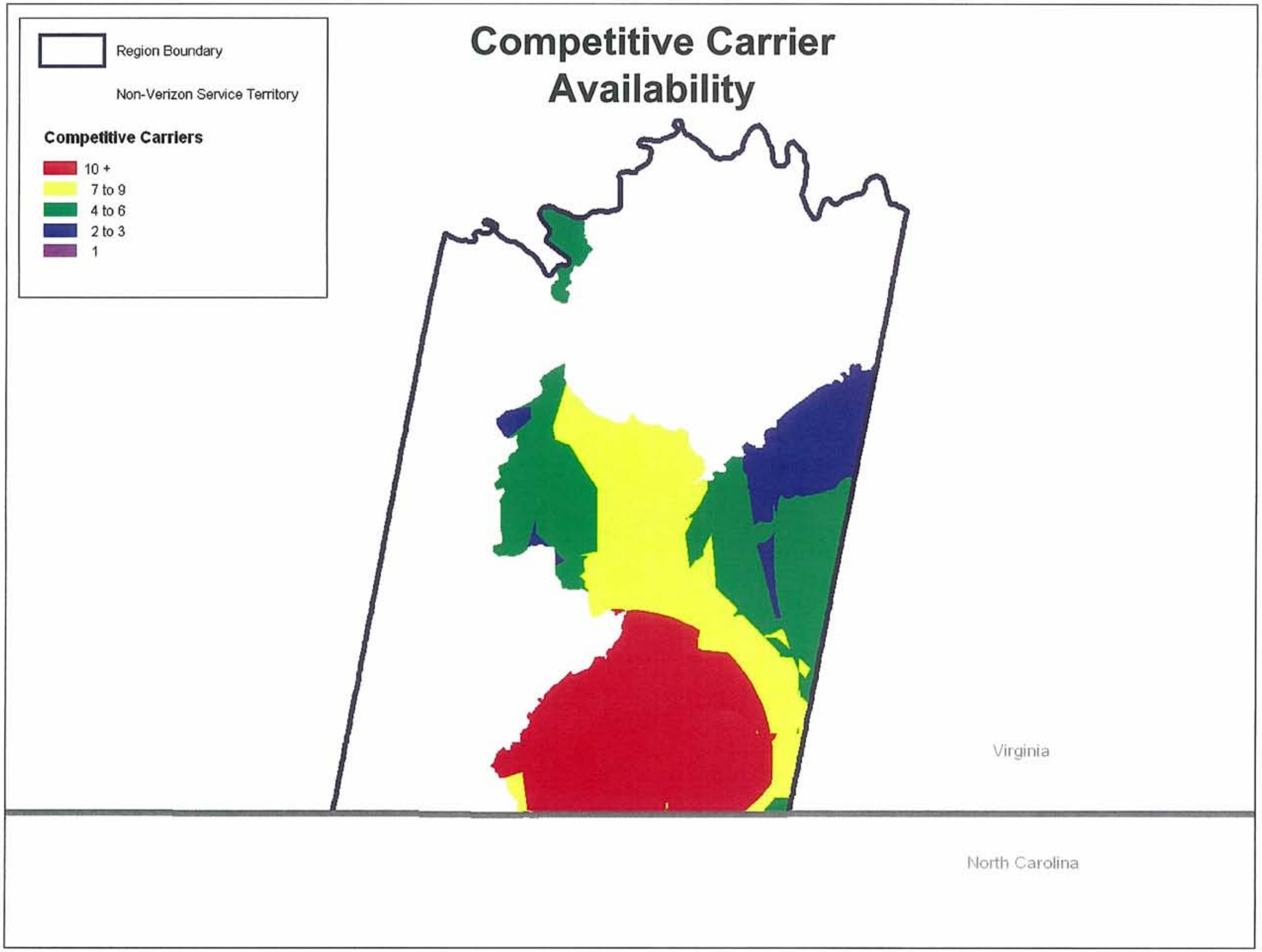
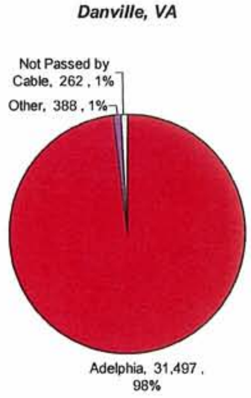


Exhibit DAN-6

DAN-7

Cable Availability



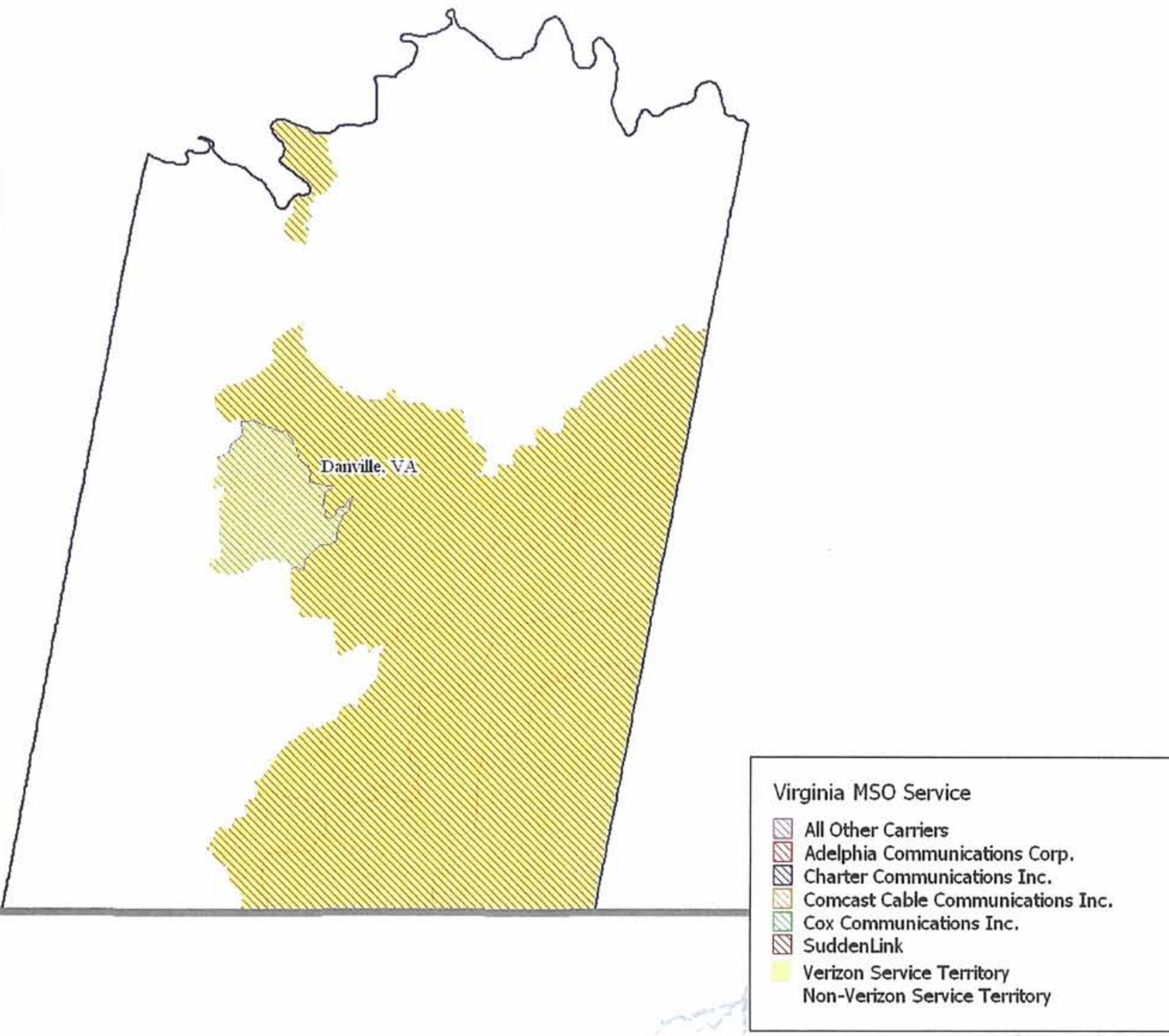
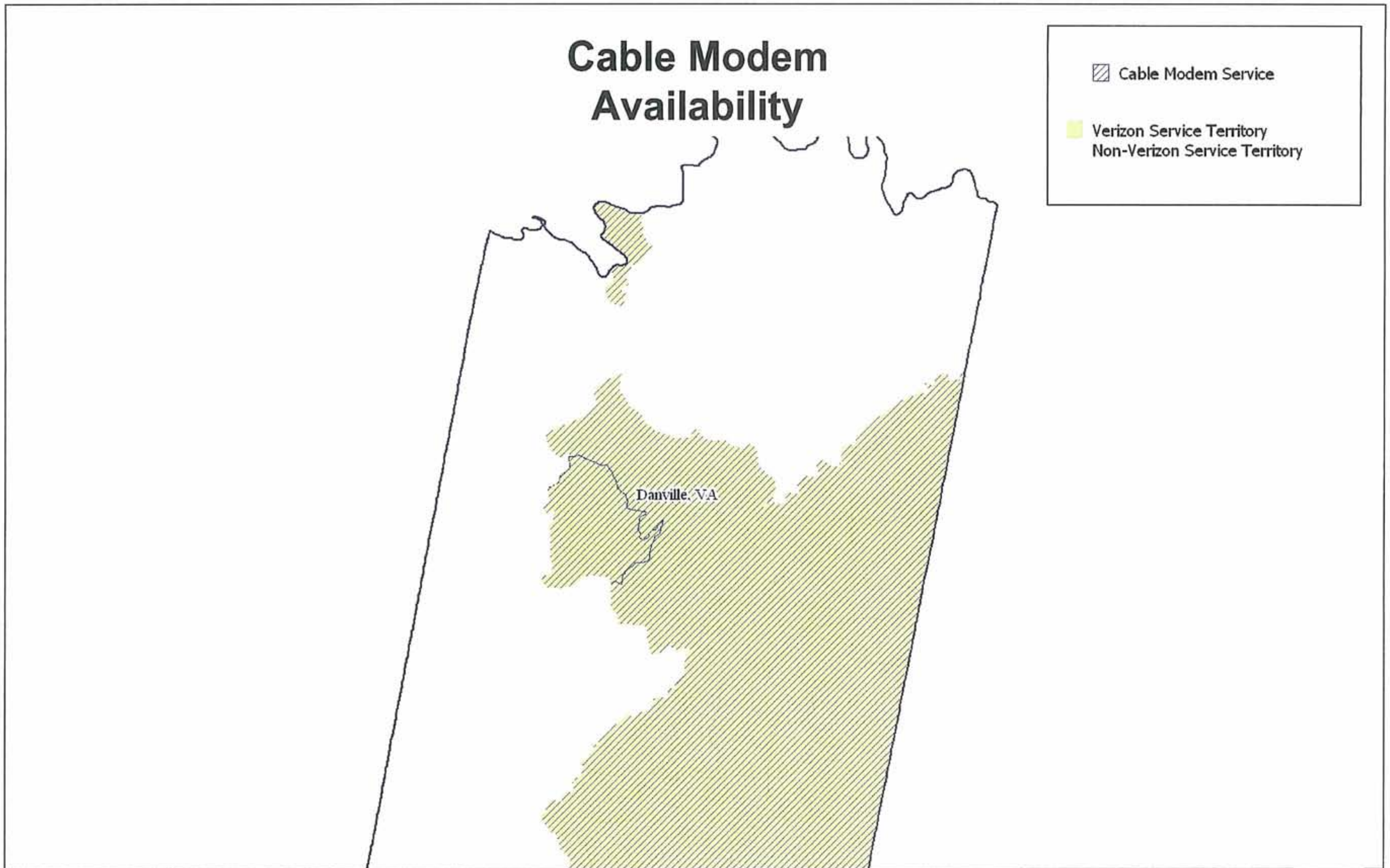


Exhibit DAN-7

Note: HH numbers reflect only those households in Verizon's Service Territory

DAN-8



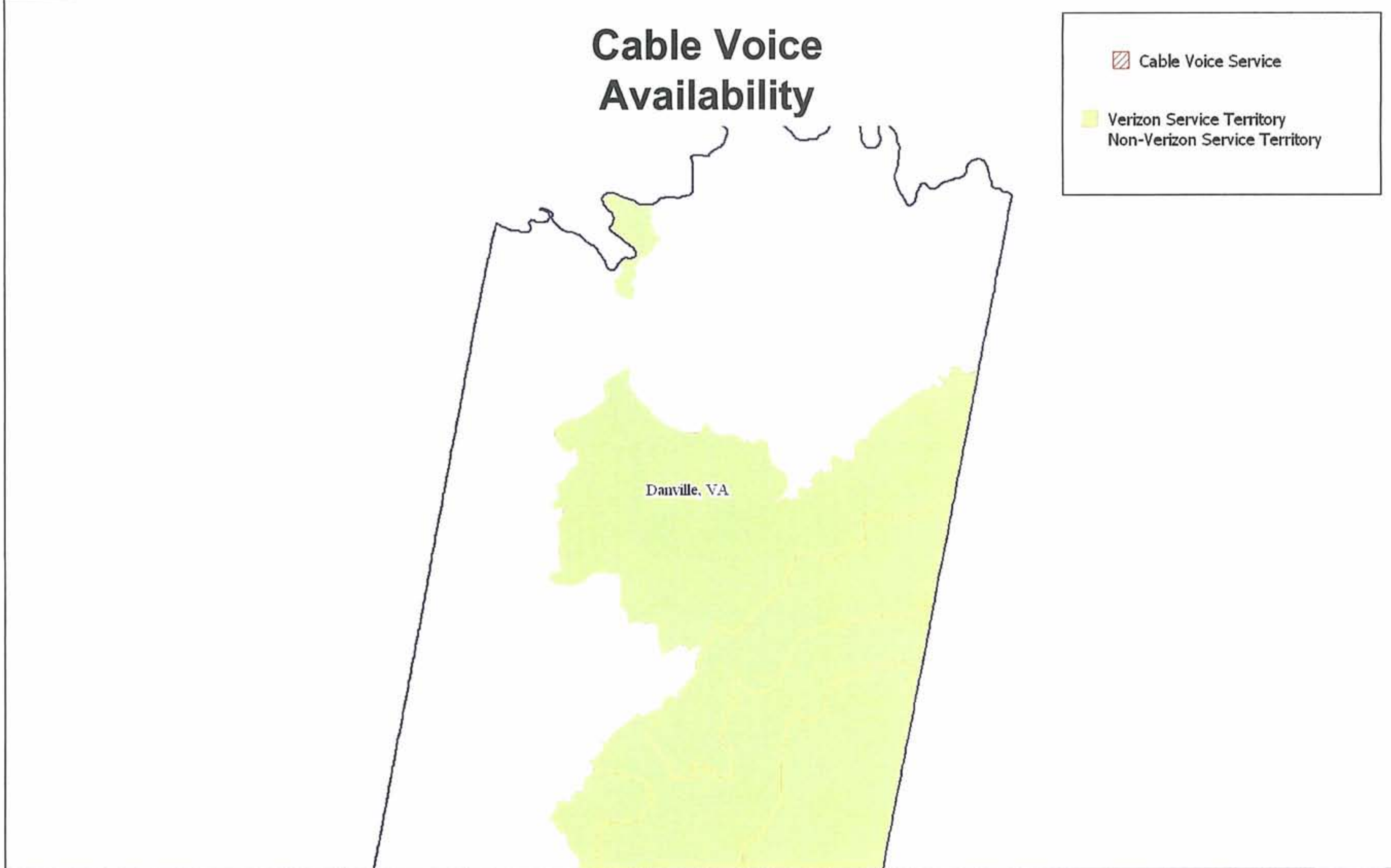
Total HH	**32,147**
HH with Cable Modem	**31,885 (99%)**

Exhibit DAN-8

Note: HH numbers reflect only those households in Verizon's Service Territory

DAN-9

Cable Voice Availability



Total HH	**32,147**
HH with Cable Voice	**0**

Exhibit DAN-9

Note: HH numbers reflect only those households in Verizon's Service Territory

DAN-10

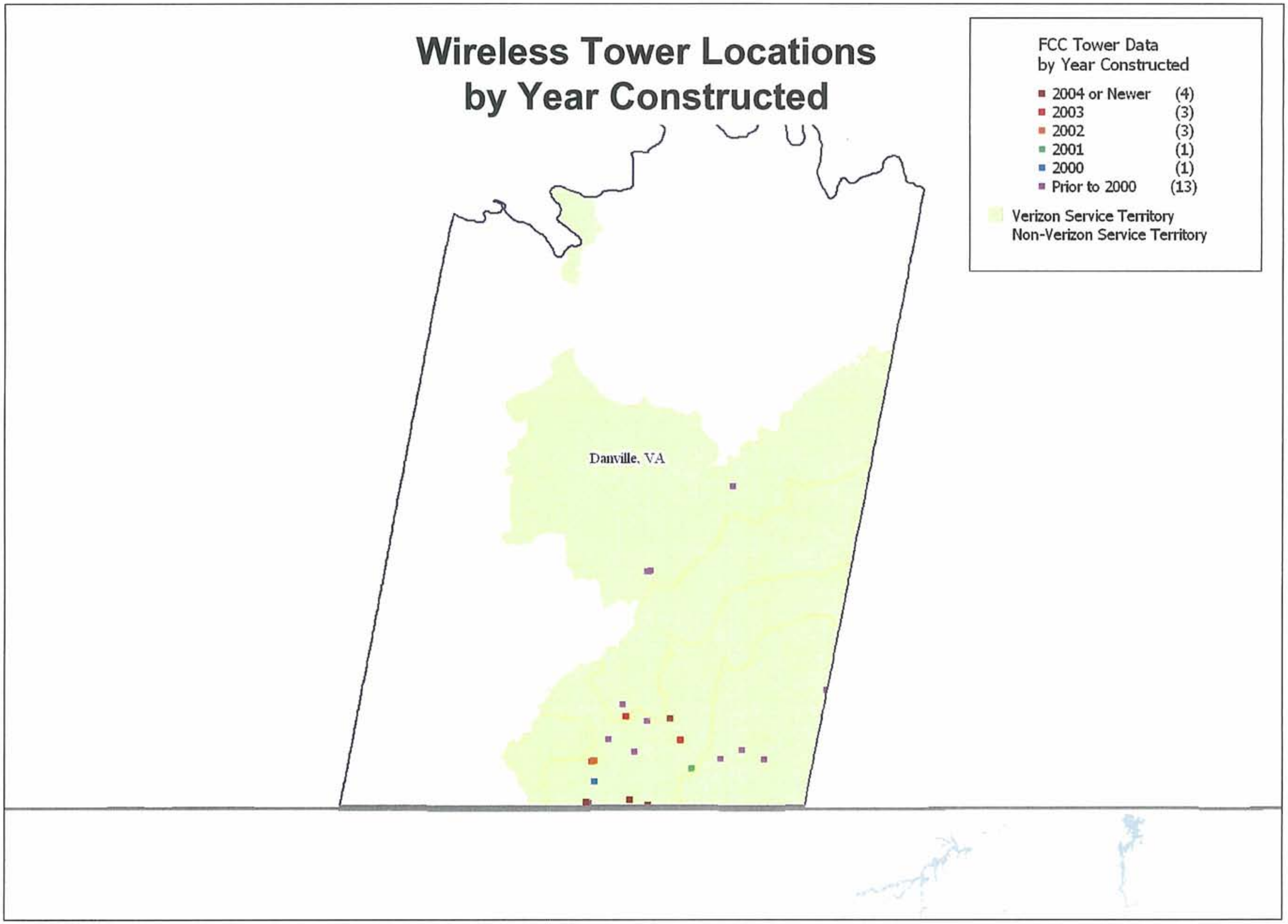


Exhibit DAN-10

DAN-11

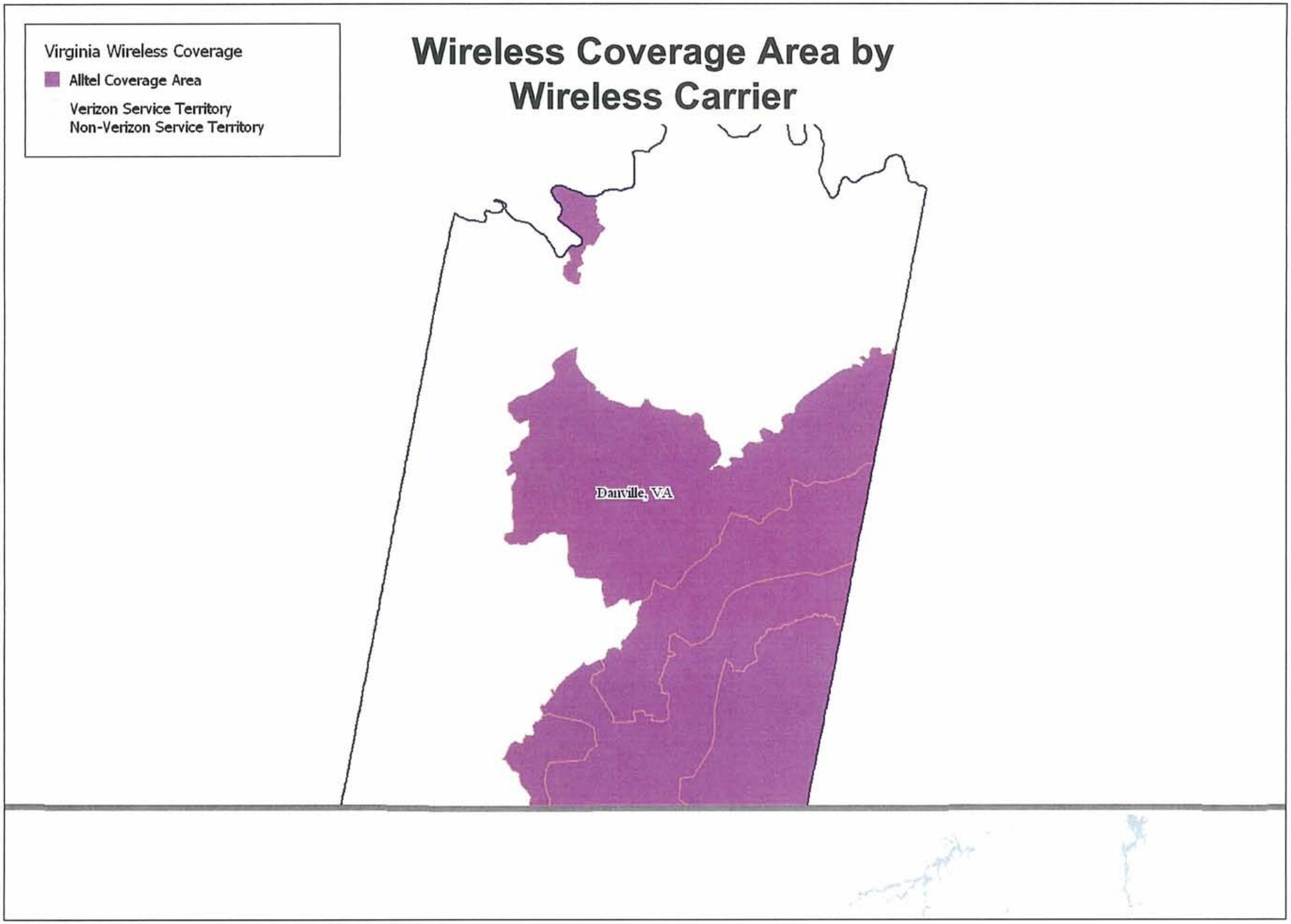


Exhibit DAN-11, page 1 of 7

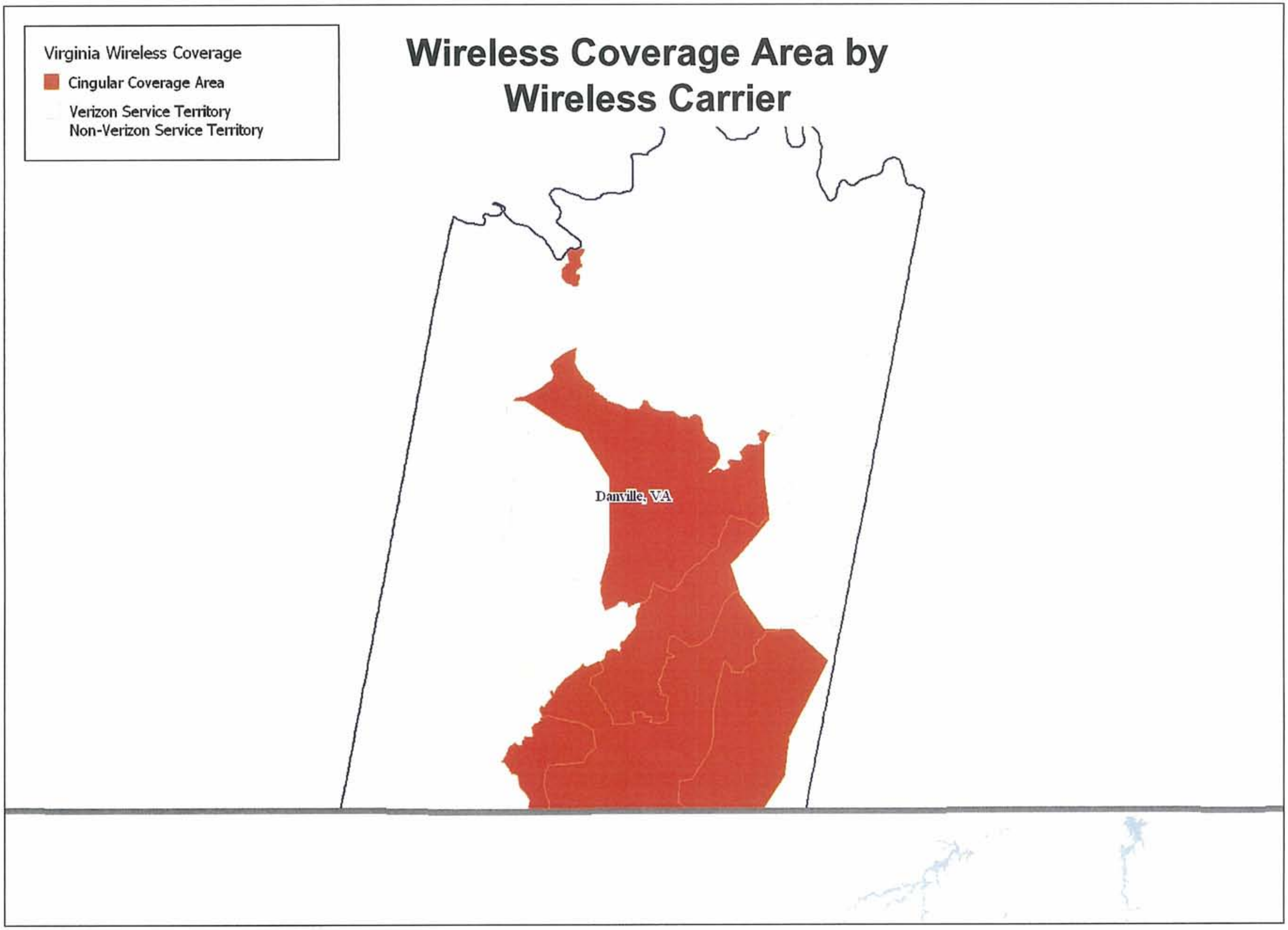


Exhibit DAN-11, page 2 of 7

Wireless Coverage Area by Wireless Carrier

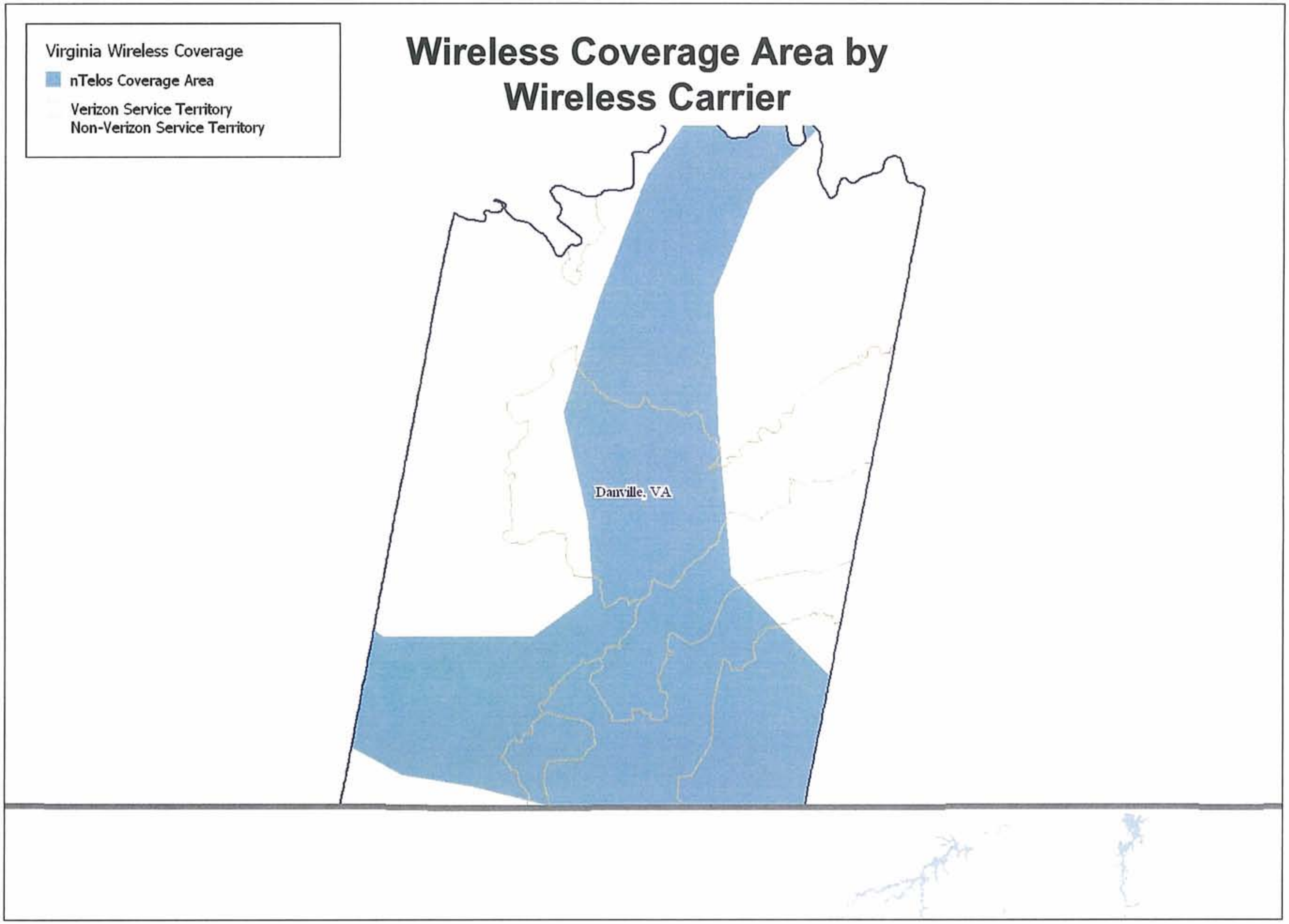


Exhibit DAN-11, page 3 of 7

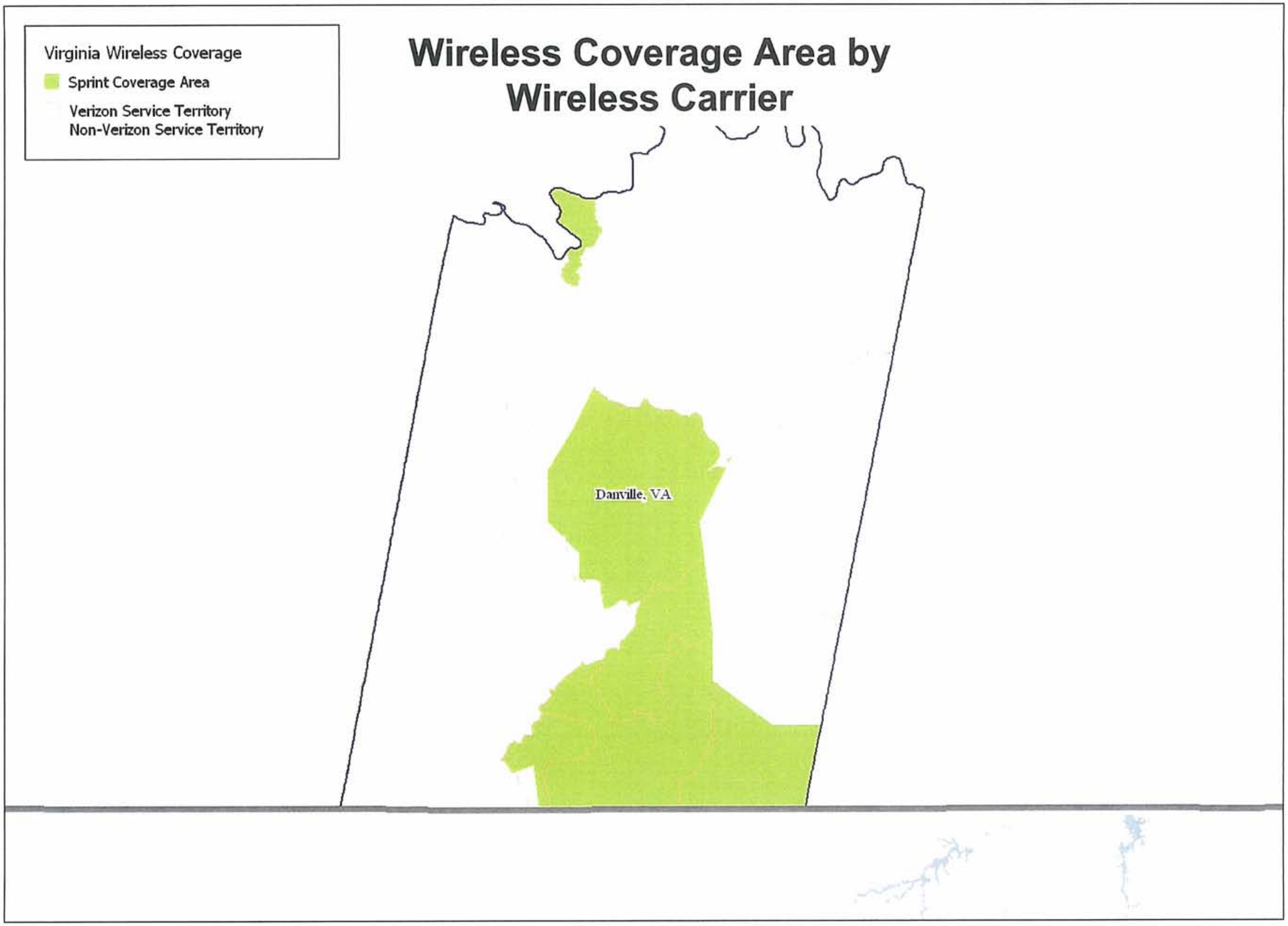


Exhibit DAN-11, page 4 of 7

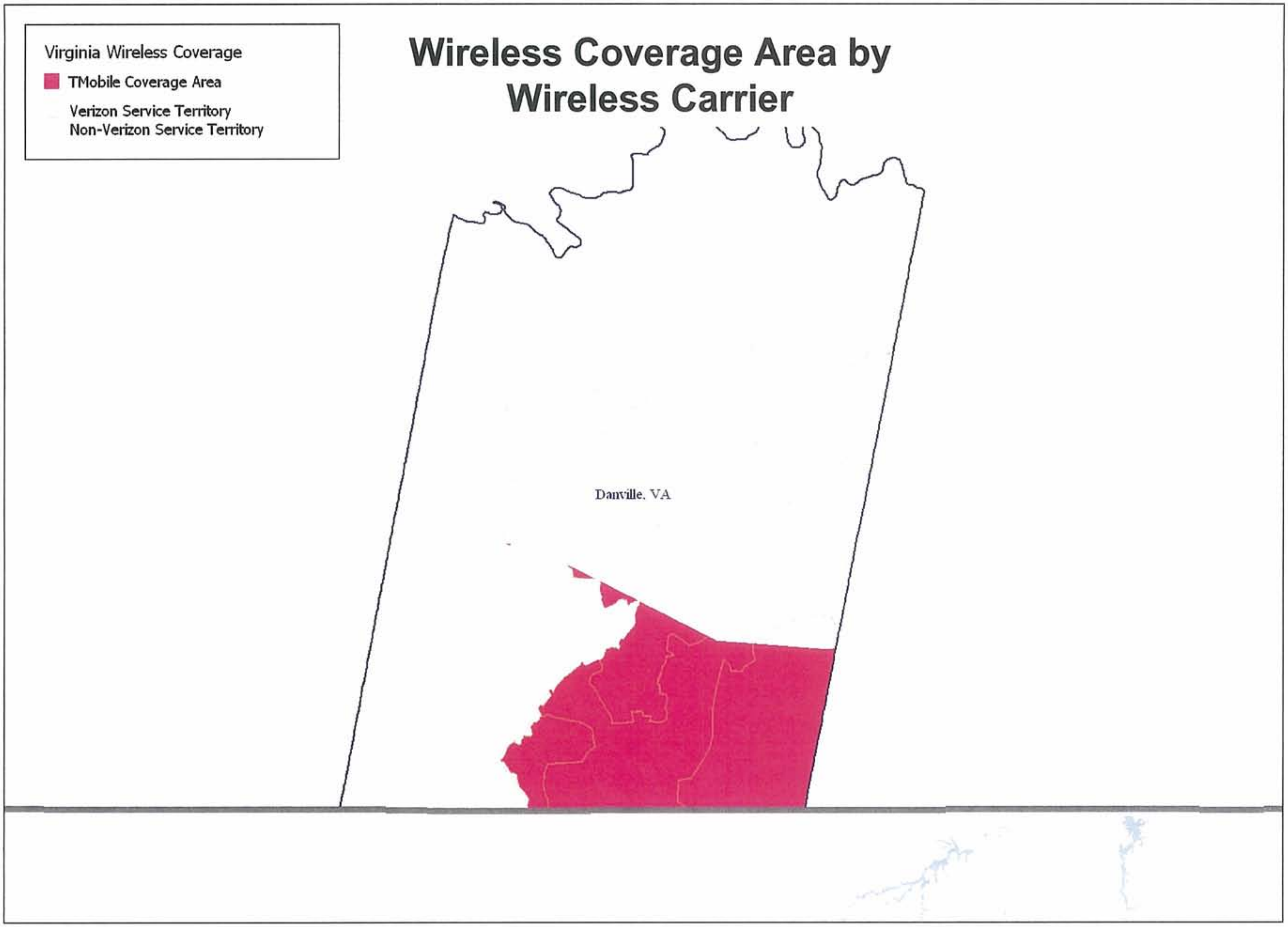
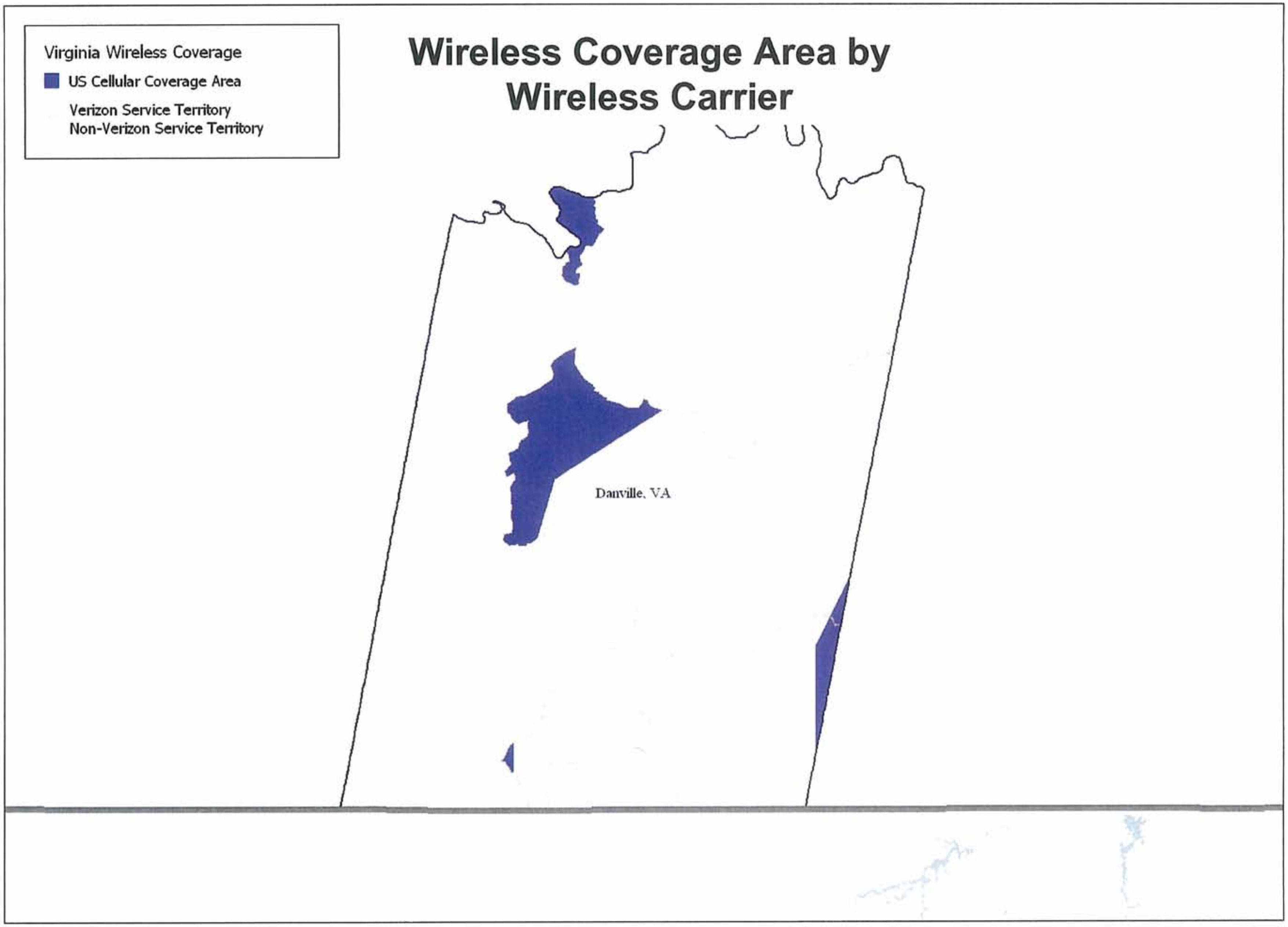


Exhibit DAN-11, page 5 of 7

Wireless Coverage Area by Wireless Carrier



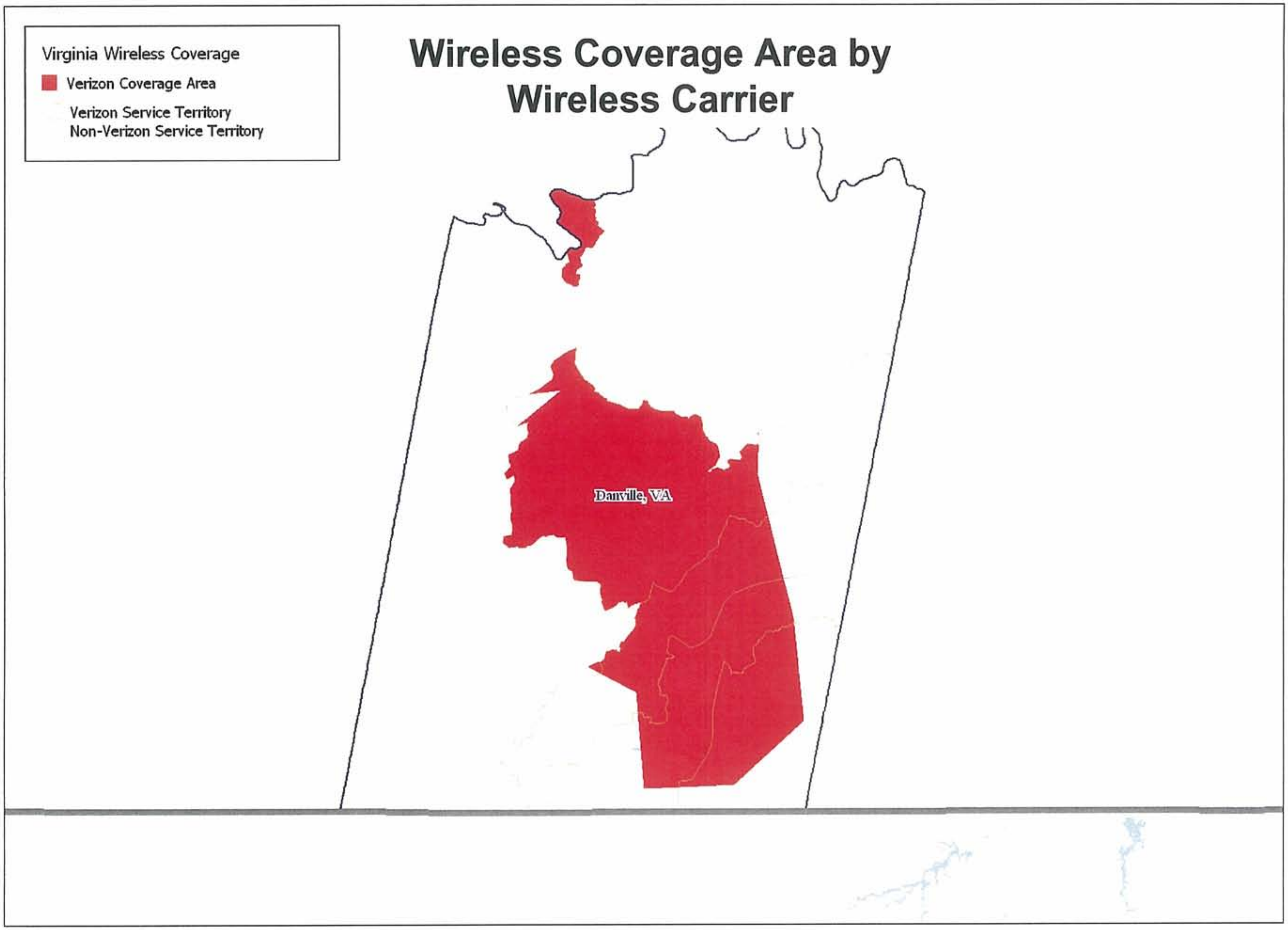


Exhibit DAN-11, page 7 of 7

DAN-12

Wireless Coverage Area by Number of Carriers

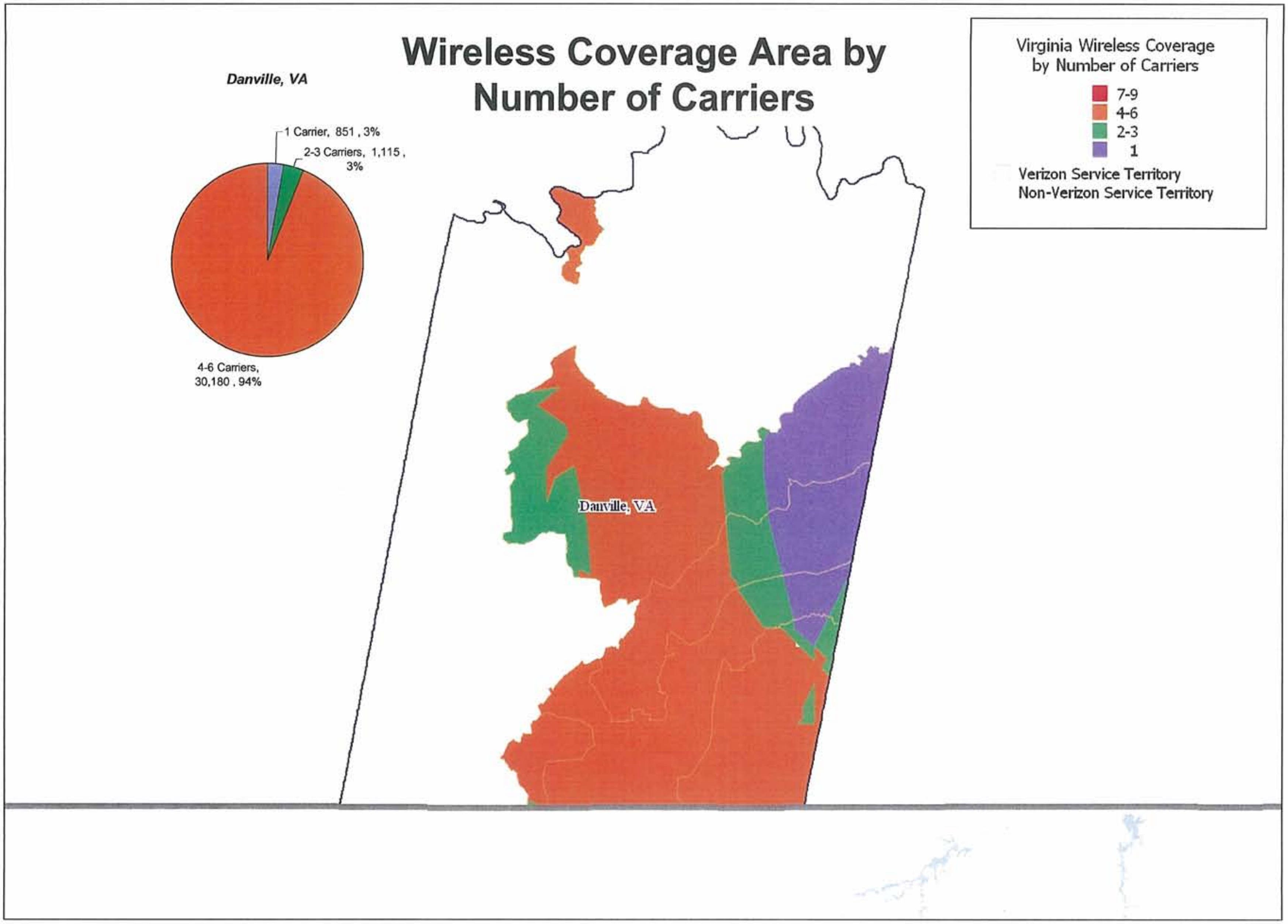
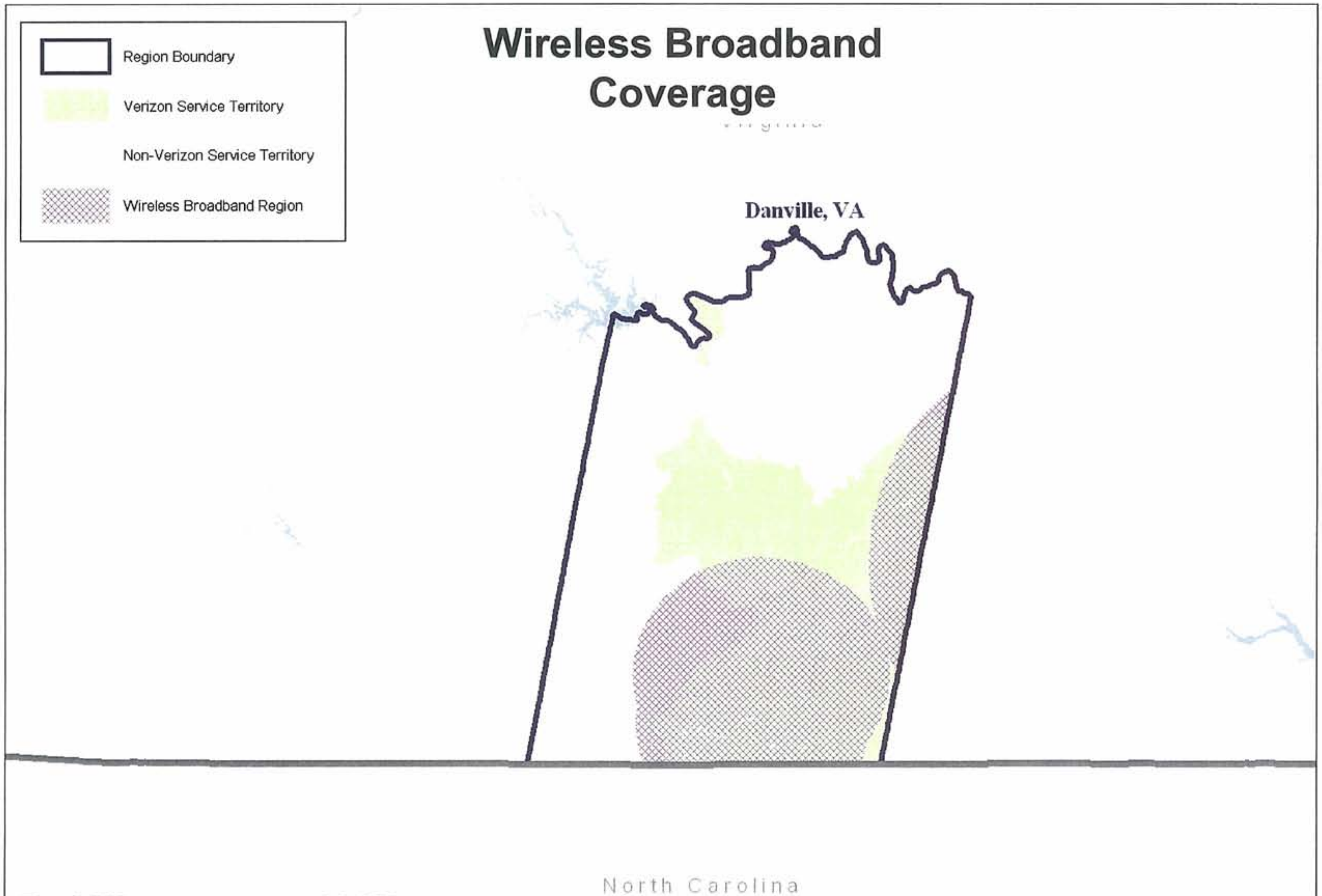


Exhibit DAN-12

Note: HH numbers reflect only those households in Verizon's Service Territory

DAN-13

Wireless Broadband Coverage



Total HH	**32,147**
HH with Wireless BB	**29,027 (90%)**

Exhibit DAN-13

Note: HH numbers reflect only those households in Verizon's Service Territory

DAN-14

CONFIDENTIAL

EXHIBIT DAN-14

DAN-15

CONFIDENTIAL

EXHIBIT DAN-15

DAN-16

CONFIDENTIAL

EXHIBIT DAN-16

DAN-17

CONFIDENTIAL

EXHIBIT DAN-17

DAN-18

CONFIDENTIAL

EXHIBIT DAN-18

DAN-19

CONFIDENTIAL

EXHIBIT DAN-19